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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/841,265	04/24/2001	Jeff Reynar	60001.0049US01/MS#154685.	6007

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EXAMINER	
SPOONER, LAMONT M	
ART UNIT	**PAPER NUMBER**
2654	

DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/841,265	REYNAR, JEFF	
	Examiner	Art Unit	
	Lamont M Spooner	2654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 April 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 April 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/24/05, 1/19/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *See Continuation Sheet*.

Continuation of Attachment(s) 6). Other: BOX 3-Information Disclosure statements CONTINUED---10/20/04,9/2/04, 7/12/04,5/06/04,1/16/2004,5/8/03,10/21/02,1/16/02.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement filed 1/19/2005 and 1/16/2002 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Objections

2. Claim 16 is objected to under 37 CFR 1.75 (a) because the meaning of the phrase "The method" in claim 16, line 1, page 30, needs clarification. Because no antecedent basis was cited, it may be unclear as to what element this phrase refers. To further timely prosecution and evaluate prior art, the Examiner has interpreted this phrase to refer to - - The system - -.

3. Claim 26 is objected to because of the following informalities: Claims in dependent form shall be construed to include all the limitations of the claim incorporated by reference into the dependent claim. Appropriate correction is required.

Claim Informalities

4. Claims 5, 6, and 7 are noted, without objection because of the following informalities:

In claim 5, line 1 page 29, "is keypad" should probably be - -is a keypad - -.

In claim 6, line 1 page 29, "is gesture-based" should probably be - -is a gesture-based - -.

In claim 7, line 1 page 29, "is sign" should probably be - -is a sign - -.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 5, 8-13, 15-17, 19-22, 24-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamakita (US Patent No. 5,956,681).

As per **claim 1**, Yamakita discloses a computer system for applying mode bias to an input field of an electronic document of an application, the system comprising:

a schema registry connected to the application (Fig. 10-registration table, Fig. 1 item 108, C.16.lines 22-28-application, C.35.lines 62-64); and

an input engine connected to the schema registry (Fig. 1 item 101-the mobile terminal comprising the input engine is connected to the schema registry, Fig. 10-the registration table, located within Fig. 1 item 108), wherein the schema registry receives a schema name from the application (C.5.lines 45-67-"destination number", "text", "e-mail"), locates a grammar associated with the schema name and sends the grammar to the input engine (C.5.lines 55, 56-formatted text generation section determines acceptable grammar associated with the schema name, "destination number", which is sent to the input engine, C.6.lines 7-19, C.35.lines 62-64).

As per **claims 2, 3, and 5**, Yamakita discloses all of the limitations of claim 1, upon which claims 2, 3 and 5 depend. Yamakita further discloses:

the input engine is a speech recognition engine (C.1.lines 33-67).

the input engine is a handwriting recognition engine (ibid).

the input engine is keypad of a cellphone (ibid).

As per **claim 8**, Yamakita discloses all of the limitations of claim 1, upon which claim 8 depends. Yamakita further discloses:

the schema registry comprises a schema database (C.35.lines 12, 13-schema registry/database) and a grammar database (C.35.lines 23-31-the grammar database (format type field dictionary-acceptable input in units of format types), wherein the schema database comprises a plurality of schema names (Fig. 10- "format type" database-is interpreted as the schema database comprising a plurality of schema names "e-mail", "destination number", "text", C.35.lines 62-64), and a plurality of pointers to grammars (C.33.line 60-C.34.line 16, C.35.lines 25-31-format type registration table points to the format type field dictionary, which in turn searches the recognized data for field specific units corresponding and registered as a keyword for the field) associated with the plurality of schema names and wherein the pointers point to the grammar database comprising a plurality of grammars (C.35.lines 11-21-pointing/referencing to format type field dictionary interpreted as the grammar database comprising a plurality of grammars).

As per **claim 9**, Yamakita discloses all of the limitations of claim 1, upon which claim 9 depends. Yamakita further discloses:

the grammar is a context free grammar (C.33.lines 60-65-clause dependent grammar).

As per **claim 10**, Yamakita discloses all of the limitations of claim 1, upon which claim 10 depends. Yamakita further discloses:

the grammar is a context sensitive grammar (C.33.lines 66, 67, C.34.line 1).

As per **claim 11**, Yamakita discloses all of the limitations of claim 1, upon which claim 11 depends. Yamakita further discloses:

the grammar is a regular expression (C.35.lines 35, 36-regular expression grammar)

As per **claim 12**, Yamakita discloses all of the limitations of claim 1, upon which claim 12 depends. Yamakita further discloses:

the grammar is a statistical language model (C.33.lines 53-59).

As per **claim 13**, Yamakita discloses all of the limitations of claim 1, upon which claim 13 depends. Yamakita further discloses:

the grammar defines an appropriate input for the input field (C.36.lines 15-36).

As per **claim 15**, Yamakita discloses all of the limitations of claim 1, upon which claim 15 depends. Yamakita further discloses:

the input engine uses the grammar to receive input from a user of the application (C.36.lines 33-36-the input engine uses the grammar rule defining acceptable text to receive input, C.35.lines 35-37, from the user).

As per **claim 16**, Yamakita discloses all of the limitations of claim 15, upon which claim 16 depends. Yamakita further discloses:

the input engine further uses the grammar to bias the user's input toward a correct input for the input field (C.36.lines 1-36-correct input comprising and email address, biased by format and unnecessary word deletion).

As per **claim 17**, Yamakita discloses all of the limitations of claim 15, upon which claim 17 depends. Yamakita further discloses:

the input engine compares the input of the user (C.35.lines 35-37) to the grammar (C.35.lines 22-31, 43-51-comparative step) to determine whether the input matches and is an appropriate input (C.36.lines 20-36).

As per **claim 19**, Yamakita discloses all of the limitations of claim 1, upon which claim 19 depends. Yamakita further discloses:

the schema registry is connected to the application through a text service framework (Fig. 1 item 108, 101-C.1.line 63-C.2.line 8-stochastic input text interfaced with mobile terminal).

As per **claim 20**, Yamakita discloses a computer system for applying mode bias to an input field of an electronic document of an application, the system comprising:

a schema registry connected to the application (Fig. 10-registration table, Fig. 1 item 108, C.16.lines 22-28-application, C.35.lines 62-64); and

an input engine connected to the schema registry (Fig. 1 item 101-the mobile terminal comprising the input engine is connected to the schema registry, Fig. 10-the registration table, located within Fig. 1 item 108), wherein the schema registry receives a schema name from the application (C.5.lines 45-67-"destination number", "text", "e-mail"), locates an identifier of a grammar (C.36.lines 1-5) associated with the schema

name and sends the identifier of the grammar to the input engine (C.5.lines 55, 56-formatted text generation section determines acceptable grammar associated with the schema name, "destination number", which is sent to the input engine, C.6.lines 7-19, C.35.lines 62-64, C.36.lines 30-36-the identifier of a grammar is sent to the input engine, in order for the text to be input in a predetermined text format).

As per **claim 21**, Yamakita discloses a computer-implemented method for applying mode bias to an input field of an electronic document of an application program module, the method comprising the steps of:

determining that an insertion point is within the input field (C.36.lines 34, 35-inherent for insertion into an appropriate field);

determining a mode bias schema that is attached to the input field (C.35.lines 11-31-format type name registry, C.36.lines 20-36);

determining a grammar that is associated with the mode bias schema (C.35.lines 15-21-format type field dictionary); and

sending the grammar to an input engine wherein the input engine uses the grammar to receive input for the input field (C.5.lines 55, 56-formatted text generation section determines acceptable grammar associated with the schema name, "destination number", which is sent to the input engine, C.6.lines 7-19, C.35.lines 62-64).

As per **claim 22**, Yamakita discloses all of the limitations of claim 21, upon which claim 22 depends. Yamakita further discloses:

the input engine uses the grammar to receive input for the input field comprises receiving text at the insertion point (C.36.lines 20-36-predetermined field is the insertion

point) and determining whether the received text (C.35.lines 32-47-received text) matches an input type defined by the grammar (C.36.lines 20-30-determination that the grammar matches an email grammar) and, if so, then displaying the text in the input field (C.36.lines 33-36, C.6.lines 16-18).

As per **claim 24**, Yamakita discloses all of the limitations of claim 21, upon which claim 24 depends. Yamakita further discloses:

cross-referencing the mode bias schema in a schema database to determine the grammar that is associated with the mode bias schema (C.35.line 11- C.36.line 5-searching through the mode bias schema for a grammar through the mode bias schema is interpreted as cross-referencing, C.35.lines 11-30, in the schema database indicates/points the/to grammar that is associated with the mode bias schema).

As per **claim 25**, Yamakita discloses all of the limitations of claim 24, upon which claim 25 depends. Yamakita further discloses:

the step of sending the grammar to an input engine comprises retrieving the grammar from a grammar database (C.35.lines 21-31-grammar is retrieved from the format type dictionary grammar database) and sending the grammar to the input engine (C.36.lines 11-36).

As per **claim 26**, Yamakita discloses all of the limitations of claim 25, upon which claim 26 depends. Yamakita further discloses:

a computer-readable medium on which are stored computer-readable instructions for performing the steps of claim 25 (C.9.lines 14-21, C.42.lines 29-46).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 4, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamakita.

As per **claims 4, 6, and 7**, Yamakita discloses all of the limitations of claim 1, upon which claims 4, 6, and 7 depend.

Yamakita does not explicitly disclose:

the input engine is an input method editor;

the input engine is gesture-based input method;

the input engine is sign language recognition engine;

However, the Examiner takes official notice that that the above input engines are well known to one of ordinary skill in the art. Therefore, at the time of the invention, it would have been obvious to one ordinarily skilled in the art to combine Yamakita with the multiple input engines. The motivation for doing so would have been to expand the input method to a terminal.

9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamakita in view of De La Huerga (US Patent No. 6,434,567).

Yamakita and De La Huerga are analogous art in that they involve text input schema for structured text.

As per **claim 14**, Yamakita discloses all of the limitations of claim 13, upon which claim 14 depends but lacks the grammar defines an appropriate input for the input field by defining a list of acceptable inputs for the input field.

However, De La Huerga teaches having a grammar define an appropriate input for a field by defining a list of acceptable inputs for the input field (C.10.lines 7-17). Therefore, at the time of the invention, it would have been obvious to one ordinarily skilled in the art to modify Yamakita by including in a predetermined field grammar rule a list of acceptable inputs for the input field. The motivation for doing so would have been to account for various input patterns (C.10.lines 15-17).

10. Claims 18 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamakita in view of De La Huerga (US Patent No. 5,895,461).

Yamakita and De La Huerga are analogous art in that they involve text input schema for structured text.

As per **claim 18**, Yamakita discloses all of the limitations of claim 17, upon which claim 18 depends. Yamakita further discloses if the input engine determines that the input of the user does not match an appropriate input, then the input engine rejects the input (C.35.lines 32-47, C.36.lines 6-36-for appropriate input, unnecessary words are deleted for appropriate input into fields), but lacks causing the application to display an error message to the user.

However, De La Huerga teaches display an error message to the user if an input does not match an appropriate input (C.6.lines 50-55). Therefore, at the time of the invention, it would have been obvious to one ordinarily skilled in the art to modify

Yamakita by indicated an error message for improper information entry. The motivation for doing so would have been to alert the user of error in an input for a specified format field (C.6.lines 51-55).

As per **claim 23**, Yamakita discloses all of the limitations of claim 22, upon which claim 23 depends.

Claim 23 sets forth limitations similar to claim 18. Claim 18 describes the limitations as indicated there.

11. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamakita in view of Bays et al. (hereinafter referred to as Bays, US Patent No. 6,519,603).

Yamakita and Bays are analogous art in that they involve text input schema for structured text.

As per **claim 27**, Yamakita discloses a computer-implemented method for determining a semantic category of a string in an electronic document based upon a mode bias schema comprising the steps of:

retrieving a mode bias schema and an associated grammar (C.5.lines 55, 56-formatted text generation section determines acceptable grammar associated with the schema name, "destination number", which is sent to the input engine, C.6.lines 7-19, C.35.lines 62-64);

determining whether the string conforms to the definition of input defined by the grammar (C.35.lines 22-31, 43-51-determining step, C.36.lines 20-36);

if so, then associating the mode bias schema with the string in the document (C.35.lines 43-64);

but lacks disclosing saving the mode bias schema as a semantic category label in association with the string.

However, Bays teaches saving a mode bias schema as a semantic category in association with a string (C.2.line 38-C.3.line 57). Therefore, at the time of the invention, it would have been obvious to one ordinarily skilled in the art to Yamakita with Bays by storing a mode bias schema as a semantic category label in associating with a string. The motivation for doing so would have been to enhance semantic interpretations as well as provide order/structure for uses to enter information (C.2.lines 47-50).

As per **claim 28**, Yamakita and Bays disclose all of the limitations of claim 27, upon which claim 28 depends.

Bays also teaches displaying a plurality of actions in association with a semantic category label (C.3.lines 34-39-comment action, and URL action is displayed in association with every annotated semantic category label).

As per **claim 29**, Yamakita and Bays disclose all of the limitations of claim 27, upon which claim 29 depends. Yamakita further discloses:

the mode bias schema and the associated grammar are retrieved from a schema registry (Fig. 10, C.35.lines 11-64-registry contains the mode bias schema, format type name, and associated grammar format type field dictionary).

12. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamakita in view of Friedman (US Patent No. 6,182,029).

Yamakita and Friedman are analogous art in that they involve schema for structured text.

As per **claim 30**, Yamakita discloses all of the limitations of claim 27, upon which claim 30 depends. Yamakita does not disclose:

the mode bias schema comprises an XML schema.

However, Friedman teaches having XML schema which represents a mode bias towards inputted information (Fig. 4 item 400). Therefore, at the time of the invention, it would have been obvious to one ordinarily skilled in the art to modify Yamakita with Friedman by using XML for schema definition. The motivation for doing so would have been to render appropriate text to users using XML, which is a computational less complex markup language than other encoding languages (C.11.line 57-C.12.line 4).

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kim (US Patent 6,014,616) teaches having an input method editor as an input engine.
- Strubbe et al. (US Patent No. 6,728,679) teaches having the input engine as a gesture-based input method, and as a sign language recognition engine having a template grammar for matching information retrieval.
- Strubbe et al. (US Patent No. 6,795,808) teaches having the input engine as a gesture-based input method, and as a sign language

recognition engine having a template grammar for matching information retrieval.

- Yoshikawa et al (US Patent No. 6,061,516) teaches having an input mode bias and schema registry, an input engine connected to the schema registry and a grammar database , wherein a grammar is associated with a schema name, and having a grammar sent to the input engine, a text service framework, and error functions on improper input.
- Matheson (US Patent 6,546,433) teaches applying a mode bias to an input field having a schema name and registry for inputting appropriate data corresponding to a format and structured acceptable data, and outputs an error message if the input doesn't match a grammar specified in a grammar/format function database.
- Kuramochi (US 2002/0026450) teaches having a data processing system applying a mode bias for text input, having a schema registry and database and grammar database, for inputting text into a fixed formatted field, having a semantic category label assigned and stored in associating with a string of information associated with a schema.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lamont M Spooner whose telephone number is 703/305-8661. The examiner can normally be reached on 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 703/305-9645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Donald L. Storm
AU 2654
PATENT EXAMINER

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03/14/2005